

stein's, or the Konzé Antelope, which is found near the Zambezi. Also a specimen of the horns of a small antelope of which Mr. Dunn had not seen any previous specimen, and which he believed was new to science. He pointed out that the annulations were very deep and regular. The animal is found to the N.W. of Delagoa Bay.

Mr. Bolus exhibited specimens of *Disperis Capensis*, and made some remarks on the fertilisation of this Orchid. Of 100 flowers examined, gathered at various times and places, there were :—

Pollinia, both <i>in situ</i> ..	88	Stigma pollinated ..	1
„ „ removed..	10	„ „ ..	4
„ one „ ..	2	„ „ ..	2

Of the flowers which had one or both pollinia removed, therefore, 50 per cent. were fertilised; of those which had neither pollinia removed, only 1.14 per cent. were fertilised. This seemed to point to the probability that the insect agent most commonly fertilised each plant with its own pollen; and the fact that the elastic thread of the pollinia curled round so as to present the pollen granules in almost every direction within a second of their withdrawal, gave some support to this hypothesis. He stated that he had not been able to detect the presence of any nectar, or any insect in the act of fertilisation. One stigma bore a small weak dipterous insect glued to its surface; and upon another flower a curculionid beetle—*Brachycerus tuberosus*, Wied, was found feeding. A want of viscosity in the discs of the pollinia was apparent, the greater number failing to adhere even when firmly touched with a pencil.

The Secretary then read Mr. Garwood Alston's letter on the subject of his model of an ostrich camp, the wires of which form parts of electric circuits enabling a dweller at the homestead to find out, without leaving the house, which, if any, of several gates is left open. The model was explained by Mr. Alston, Junior.

He also exhibited a device used to find out whether an ostrich egg contains a living embryo: he stated that one addled egg in the incubator will destroy the others. His brother had been successful in hatching about 70 per cent. of the eggs placed in the incubator by means of it.

He also exhibited a home-made drilling and sawing machine.

The thanks of the Meeting were unanimously voted to Mr. Alston.

Mr. Finlay then read his paper on the "Variations of Level of the Cape Transit Circle."

Ordinary Monthly Meeting.

WEDNESDAY, October 3, 1884.

MR. DAVID GILL, LL.D., F.R.S., IN THE CHAIR.

The Rev. G. H. R. Fisk reported the safe arrival in England of a large earthworm, six feet four inches in length (five feet unextended), which he had received from Mr. Bidwell, of Uitenhage.

Professor Guthrie read a note on the "Calculus of Variations," in which he shewed that the formula for an extreme value could be deduced from the ordinary methods of determining maxima and minima values.

Mr. G. Gresswell then read a paper on the question, "In what sense, and how far, can the Evolution Theory be reconciled with sound Philosophy?"

An animated and interesting discussion followed, in which Dr. Gill, Hon. C. A. Smith, Dr. Shaw, Rev. Canon Lightfoot, and the Rev. G. H. R. Fisk took part.

It was resolved, on a motion by Dr. Shaw, that the discussion be continued at the next meeting.

Ordinary Monthly Meeting.

WEDNESDAY, October 29, 1884.

Mr. R. TRIMEN, F.R.S., PRESIDENT, IN THE CHAIR.

The Rev. G. H. R. Fisk exhibited a box-tortoise from the Philippine Islands; also a lizard caught at Robben Island—a rare specimen with red markings—commonly called "Layard's Lizard."

Professor Guthrie exhibited two remarkable ostrich feathers.

Dr. Shaw was unable to be present to carry on the discussion on Mr. Gresswell's paper, and Mr. Gresswell then replied to the various questions and objections that had been raised.

Dr. Kolbe then read a first paper on "Linguistic Pioneering in South Africa."

Professor Guthrie and Mr. Gresswell made a few remarks on the subject of this paper.

Mr. Finlay gave elliptic elements of Comet 1884*b*.

Ordinary Monthly Meeting.

WEDNESDAY, November 26, 1884.

Mr. J. G. GAMBLE, M.A., VICE-PRESIDENT, IN THE CHAIR.

Proposed by Dr. Gill and seconded by the Hon. C. A. Smith,—That the Meeting be adjourned for a week on account of the bad weather.

Postponed Ordinary Monthly Meeting.

THURSDAY, December 4, 1884.

Mr. R. TRIMEN, F.R.S., PRESIDENT, IN THE CHAIR.

Dr. Gill presented a copy of his and Dr. Elkin's work on "Stellar Parallax," and a copy of his lecture delivered at the Royal Institution of Great Britain.

The thanks of the Meeting were voted to Dr. Gill.

Mr. Gamble then explained his diagrams on "Mean Maximum and Minimum Temperatures at various places in South Africa."

Dr. Gill then described investigations on Stellar Parallax generally, referring to the work of Henderson, Macéar, Struve, and Bessel. He described the Heliometric method and gave results of his observations of α Centauri and other Southern stars.

The thanks of the Meeting were voted to Dr. Gill.

Ordinary Monthly Meeting.

WEDNESDAY, January 28, 1885.

MR. R. TRIMEN, F.R.S., PRESIDENT, IN THE CHAIR.

The following donations (books) were announced, and the thanks of the Society voted to the donors.

Bericht des Vereines für Naturkunde zu Cassel.

Boletin de l'Academia Nacional de Ciencias en Cordoba Tome VI.

Mr. Péringuey then read a paper on "Insects injurious to Forest Trees in S. Africa."

Mr. Trimen was of opinion that the question of forest insects would never be thoroughly sifted unless it was made someone's special business, as is done in the United States. As instances of the advantage of having specialists, he mentioned the finding of remedies for the Colorado Beetle and the Phylloxera.

The thanks of the Meeting were voted to Mr. Péringuey.

Ordinary Monthly Meeting.

WEDNESDAY, February 25, 1885.

MR. J. G. GAMBLE, M.A., VICE-PRESIDENT, IN THE CHAIR.

Mr. L. Péringuey was unanimously elected an ordinary Member of the Society.

The following donations were announced, and the thanks of the Society voted to the donors :—

Descriptive Sketch of the Physical Geography and Geology of the Dominion of Canada.

Comparative Vocabularies of the Indian Tribes of British Columbia.

Geological Map of the Dominion of Canada.

Mr. Bolus exhibited a new Orchid, discovered on Table Mountain, by Professor Bodkin, M.A., and which he had named after its discoverer, *Disa Bodkini*.

Professor MacOwan exhibited some specimens of Cape Cochineal collected in the Botanic Gardens, Cape Town.

Dr. Kolbe then read a continuation of his paper on "Linguistic Pioneering in S. Africa."

After some slight discussion, in which Messrs. Bolus, MacOwan, Gamble, Dr. Kitching, and the Rev. F. W. Kolbe took part,

The thanks of the Meeting were voted to Dr. Kolbe for his paper.

Ordinary Monthly Meeting.

WEDNESDAY, March 25, 1885.

MR. R. TRIMEN, F.R.S., PRESIDENT, IN THE CHAIR.

The following donations were announced, and the thanks of the Society voted to the donors :—

Boletin de la Academia Nacional de Ciencias en Cordoba.
Volume VI., Part 4.

Report of the Smithsonian Institution for 1882.

Mr. Péringuey exhibited a number of remarkable specimens of *Phasmidae* which mimicked surrounding objects, *e.g.*, a blade of grass, a piece of dead wood, or even a green leaf, to such an extent as to be almost indistinguishable from these objects to a casual observer. In spite of the protection thus afforded to the insects, he contended that there was here a case of retrogression, because their ancestors were more perfect, instancing specimens of *Phasmidae* found in the coal measures of Commeny.

Mr. Bolus pointed out some difficulties in the way of accepting a theory of retrogression; and in connection with mimicry he instanced a case of *Mesembryanthemum* which imitated closely the stones among which it grew.

Mr. Gresswell was of opinion that mimicry was much more widely extended than we are generally aware of, and that this mimicry implied a state of fixity beyond which there can be no improvement.

Mr. Trimen thought that we might accept degradation in animal organization as a fact, especially in parasitic animals.

The thanks of the Meeting were voted to Mr. Péringuey.

Mr. Gamble read, "The Storms of the Cape Colony," by Mr. A. G. Howard, a précis of the paper to be read at the next Meeting.

He also gave some notes on evaporation. From observations last year at Van Wyk's Vlei, he found that the total evaporation in the year was 80 inches, and at Van Staaden's river, 40 inches.

He also exhibited a diagram shewing the connection between the discharge of the main spring at Cape Town and the rainfall. The spring had recently been cleaned out, and the effect of this on the discharge was very marked.

The proceedings closed with a vote of thanks to Mr. Gamble.

Ordinary Monthly Meeting.

WEDNESDAY, April 29, 1885.

MR. J. G. GAMBLE, M.A., VICE-PRESIDENT, IN THE CHAIR.

The following donations were announced, and the thanks of the Society voted to the donors:—

Journal and Proceedings of the Hamilton Association, 1882-'83.

The Origin of the Fauna and Flora of New Zealand, by Capt. F. W. Hutton, F.G.S.

Mr. Bolus exhibited an old botanical book, one of the first in which Cape plants were figured.

Capt. Warton exhibited a variety of fungi which he had found at Newlands.

Professor MacOwan gave an interesting description of several of the specimens and of their qualities—among them was the edible variety of the boletus.

Mr. Cairncross exhibited a small anemometer, designed to measure currents of air for the purpose of ventilation.

Mr. Gamble read Mr. A. G. Howard's paper on "The Isobaric Influences and Cyclonic Paths of S. Africa."

The thanks of the Society were voted to Mr. Howard.